

63.51

KILN-HOUSES

FOR THE

EXTRACTION OF FOREST TREE SEEDS,

under the control of the Austrian State

LIBRARY
RECEIVED
OCT 25 1930
U. S. Department of Agriculture

A. Grünwald
Wiener Neustadt Austria

FOREST SEED-
COLLECTOR GREATEST
SPECIALIST IN FOREST
SEEDS

Member of the American Association of NUR-
SERYMEN, the American Tree Association

ESTABLISHED 1868

September 1930



Wiener-Neustadt, September 1930.

To my Customers.

GENTLEMEN,

RECEIVED
OCT 25 1930 ★

In presenting to my dear Friends and Customers my price-list for 1930/1931, I feel that I have to extend my warmest thanks to them for all the kindness shown me and to solicit their support for the future.

I beg once more to call their attention to the high reputation my forest tree seeds are enjoying throughout the world.

My Firm has been doing the tree seed business these 62 years and I am now the leading forest tree seed exporter in Europe. The seeds offered are extracted under my personal supervision in my Plants, the origin of them being continually controlled by the Austrian State, so that I feel I can supply you quality seeds at reasonable prices.

To obtain seeds of most reliable quality, I have the cones collected from selected trees. The virile seeds are carefully sun-dried to fit the region for which they are destined.

To convince you of the choice quality of my productions, I beg to quote but two letters received in the last days and spontaneously written by customers:

The Assistant State Forester of the Dept. of Conservation, Div. of Forestry, Indianapolis, Ind., writes:

Aug. 9th 30.

"We have obtained excellent germination results from the seed purchased last year and expect to order etc."

The Nekoosa Edwards Paper Company, Port Edwards, Wis. write:

July 22, 30.

"Your seed was planted during the middle of May and germinated exceptionally well. Your seed has proved very satisfactory and we wish to compliment you on the high quality of seed you people sell."

Hundreds of such like letters may be presented for inspection at any time in my Offices. They sufficiently prove both my earnest will to give efficient service and the satisfaction experienced by my Customers.

Come and you will be served the same way!

Send your orders as early as possible and I shall promptly advise my acceptance of the whole quantity or part of it, this acceptance being always subject to the yield of crop.

I am soliciting your patronage and your co-operation.

I am prepared to supply particulars of all kinds of

Exotic Seeds

and arrange for their collection from most reliable sources. Orders of this kind are especially requested to be sent in on receipt of this catalogue. They are handled in the order they reach me.

My first consideration is quality and I spare no expense in securing the best material obtainable.

The prices I offer are as low as first class seeds can be sold for.

I honestly wish to satisfy you and I await your kind orders.

A. Grünwald.

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Terms and Conditions.

PRICES: They are given in U. S. Gold Dollars and Cents free Wiener-Neustadt. Packing- and forwarding-(shipping) expenses are not included, they are charged separately at cost-price. Less than 500 lbs. are calculated at 100 lbs. rate, less than 25 lbs. at 1 lb. rate. Less than 1 lb. addition of 20%. Less than 2 oz. cannot be sold. While I do not think there will be any serious change, all prices are made subject to market-changes and prior sale without previous notice.

This catalogue cancels all previous offers.

PAYMENT: 5% discount is allowed for orders accompanied with cash for the full value of the order. Orders from parties unknown will not be accepted unless accompanied by remittance or convenient references. For the parties of approved credit special terms on agreement. Credit charges usually carry a 10% advance over my regular prices.

ORDERS: All orders are booked on the distinct understanding: „SUBJECT TO CROP OR SHORT SUPPLY BEYOND MY CONTROL“.

By placing orders at an early date, prompt delivery after harvest is ensured.

SHIPPING: Please give full shipping instructions, together with the number of the permit required for importation in the U. S. A. Otherwise best judgment will be used in forwarding the goods, which travel at consignees' risk. I take no risk for damage in transit.

LIABILITY: While using every effort to supply all seeds of true stocks and high germinating power, I give no warranty expressed or implied as to description, quality, productiveness, percentage of growth or any other matter, there being too many causes known and unknown which prevent good seeds from germinating.

If the goods are not found satisfactory on arrival, my Customers are requested to notify me at once, otherwise I do not hold myself responsible.

Any errors in filling orders will be cheerfully correcte I like to have orders placed with me on the basis of mutual understanding and confidence and will do my utmost to thoroughly please you.

I assume no liability if unable to fill any order or portion of order in case of causes beyond my control, also when my stocks run short on account of orders previously booked or errors in estimate.



Picea Omorica Paničič

Some data about the most beautiful of the Piceas, the rare and interesting *Picea Omorica* Pančič.

While in former geological epochs the ancestors of these trees were widely spread, the region where they grow now is very limited.

In 1875 the botanist Prof. Dr. Pančič succeeded in stating the first trees of this variety near a Serbian village.

In their habitat the slender trunks reach a height of 100 to 130 feet and bear relatively short branches. Their thick crown is almost column-shaped, the needles more broad than long.

The *Picea omorica* is the decorative tree par excellence, of high architectonical effect, because of its crown descending to the soil with down-hanging twigs, the ends of which setting themselves upright in soft curves. The upper branches are adorned with the delicate cones in various hues from green to purple-violet and cinnamon-colour, which form an exceedingly nice contrast with the dark-green and silvergray needles.

Free-standing trees offer a particularly impressive view; planted in groups, they tower above their surroundings and delight the eye of the lover of beauty.

The *Picea omorica* is highly recommendable for ornamental purposes and as a park-tree on account of the magnificent and unique silhouette, the slimly rising trunk and the gracefully hanging twigs.

The wood is somewhat darker than that of the other *Piceas* and less ramous. The extreme height of the tree and its slender growth render it particularly fit for the production of timber and it gives masts not surpassed by any other species.

It is a special advantage of these trees that they develop their buds of light-red colour very late, so that they cannot be damaged by late frosts.

They prefer calcareous soil in their habitat, but accomodate themselves easily to whatever kind and they thrive in altitudes up to 5000 feet on stony and rocky slopes.

They are absolutely frost-hardy. In the Botanical Garden here for instance a group of these trees, which besides belong to the oldest specimens planted in a park and which are 50 feet high, measuring in diameter 1 foot in breast-height, stood the extremely severe winter of 1928/1929 in an irreproachable way.

As they are not susceptible of being poisoned by smoke, it is recommendable to plant them in big towns.

10 lbs.	1 lb.
Prices: Dollars 30.—	36.— per lb.

THE CHIEF PRODUCER OF TANNIN: MIMOSA DECURRENS MOLLISSIMA

Since the great war the importance of this tree has been more and more valued, because of the 32 to 35% of excellent tannin contained in its bark, which is used with the greatest success and to very great extent. It gives the leather an exceedingly fine rose-colour and the tanning results better and quicker than done by other products as chest-nut wood, oak-bark, myrobolans etc.

Consider that very little tannin is produced in the world, that the bark of oaks and chestnuts contains hardly 10% of it and that a Mimosa tree can be turned to account at only 8 years of age and you will understand the interest the plantation of such trees meets everywhere.

They have made the fortune of Natal where 200.000 acres are covered by these trees. In Marocco, in India and Madagascar there are extensive plantations.

The appropriate climate must be exempt from severe frosts, the best thing is if there are no frosts at all. They require a yearly rainfall of $1\frac{1}{2}$ to $2\frac{1}{2}$ feet. They are much averse to lime and soon perish in calcareous soil.

Optima condition for their thriving is light soil, sufficiently nutritious, with a phreatic cover of 3 to 6 feet deep.

They resist very well the heat of summer and bear 35 to 40 centigrades. They thrive still better in those countries where there is rainfall during summer. Coastal fogs and a highly hygrometrical atmosphere are excellent.

These trees are of most rapid growth. In eight years they reach about 60 feet with a diameter of $\frac{1}{4}$ yard on an average at 3 feet from the soil.

One tree yields on an average 21 lbs. of dry bark 28 to 48 tons per 10 acres. The wood is much estimated for poles in mines, excellent for palings, stakes and espaliers for vines. It is very resistant and elastic. It ought to be dried in the shade. The trees easily grow quite straight.

I can affirm the botanical purity of the seeds offered, they are rigorously homogeneous. This point is of the greatest importance, because there are a great number of Mimosas and they are exceedingly inclined to form hybrids, which however are of less value than the true MIMOSA DECURRENS MOLLISSIMA.

1000 lbs.	100 lbs.	1 lb.
Prices : Dollars —.55	—,60	—,70 per lb.

Evergreen Seeds,

obtained in my Extraction-Plants, fitted with up-to-date machinery.

The origin of the seeds is warranted by the continual control of the Austrian State.

(All my seeds are accompanied by inspection-certificates of the Seed Experimental Station of the Austrian State.)

	germina- tive power	purity	Prices for: 1000 lbs. 100 lbs. 1 lb. U. S. \$ per lb.
ABIES pectinata , European Silver Fir . . .	50% _{cut}	90%	— .26 — .30 — .35
Origin: hill districts 600—1600 ft. above the sea, mountains of medium height 1600 to 3300 ft. above the sea.			

Most suitable for the planting of mountainous regions of 600—4500 ft. in light and deep soil of all kinds, enduring calcareous soil too. Height 140 ft.

JUNIPERUS communis , Common jun.*) new crop			— .04 — .05 — .10
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Origin: hill districts 600—1600 ft., mountains of medium height 1600—3300 ft.

Excellent cover for game in sandy, stony and above all calcareous soils.

LARIX europaea , European Larch . . .	50%	85%	— .55 — .60 — .70
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Origin: Northern Italy (Trentino) high mountains, mountains of medium height . . .

Silesia, Sudetic mountains, especially capable of offering resistance to the pressure of snow and storm, mountains of medium height.	50%	85%	1.35 1.50 1.80
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Contents itself with all kinds of soils, calcareous, schistous or sandy, if they are conveniently fresh, deep and permeable. It may be planted in plains or in mountains up to 6000 ft.

PICEA excelsa , Norway Spruce . . .	90%	96%	— .33 — .36 — .45
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Origin: Austrian, hill districts . . . 600—1600 ft.
Austrian mountains of medium

height 1600—3300 ft.

Czechoslovakia, hill districts 600—1600 ft.

Carpathians and Tyrol . 1600—4000 ft.

Germany (Black Forest, Hartz Mountains) 1600—3300 ft.

Prefers fresh, deep and permeable soils, resisting the calcareous one very well too. Is fit for the afforestation of regions, up to 6000 ft.

PINUS austriaca , Pinus laricio var. austriaca, Austrian Pine	85%	97%	1.— 1.10 1.30
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Origin: Austria, low districts 600—1600 ft. above the sea

medium height 1600—3300 ft. above the sea

Dalmatia, coastal ranges of the Adriatic lowlands.

This species is prominently fit for the planting of calcareous soil, but it thrives just as well in deep and fresh sands. It does not like very wet and compact ground. Best all-round species for exposed situations, unexcelled for sea-shore planting. Height 80 ft. Especially fit for obtaining resin.

*) If ten tons or more are required, ask special offer cif American harbour.

Use Grünwald's Tester!

			Prices for:		
			germina- tive power	purity	1000 lbs. 100 lbs. 1 lb. U. S. \$ per lb.
PINUS cembra , Swiss Stone Pine	new crop	— .17	— .20	— .25	
Origin: Alps, high mountains above 3300 ft.					
Suitable for the planting of high regions between 4500—7500 ft. It likes fresh, light and deep soils. Its graceful foliage renders it useful for ornamental purposes. Height 70 ft.					
PINUS halepensis , Aleppo pine	80% ₀	97% ₀	— .50	— .55	— .60
Origin: Coastal ranges of the Adriatic, Italy.					
Valuable forest tree for the afforestation of calcareous regions in temperate warm zones. Height 40—60 ft.					
PINUS laricio var. corsica , Corsican Pine	75% ₀	97% ₀	1.50	1.65	2.—
A very fine forest tree, well thriving in the same soils as <i>Pinus austriaca</i> . The young plants are seldom attacked by rabbits.					
PINUS maritima vel <i>pinaster</i> , Cluster pine*)	70% ₀	97% ₀	— .08	— .10	— .15
Origin: Italy,					
Atlantic coast.					
Big forest tree especially preferring silicious soil and soon perishing in calcareous one. Very recommendable for the plantation of downs along the sea-coast. Height 100 ft.					
PINUS montana mughus , Manybranched Mugho Pine	80% ₀	95% ₀	1.50	1.65	2.—
Origin: Alps and Riesengebirge (Giant Mountains)					
Bushy arbuscle, suitable for the laying out of picturesque gardens and for afforestation in great altitudes.					
PINUS montana uncinata , Swiss Mountain Pine	80% ₀	95% ₀	1.50	1.65	2.—
Origin: Denmark					
Especially valuable for the planting of downs as well as of high mountains between 5000 and 8000 ft. height. Thrives well in all kinds of soils and lives even on soils which are constantly moist. Height 70 ft.					
PINUS pinea , Italian Stone Pine*)	80% ₀	97% ₀	— .15	— .18	— .25
Origin: Coastal ranges of the Adriatic, Italy.					
Likes silicious-granitic and argillaceous-gravelly soils. Warm climate is indispensable for this seed. Height 100 ft.					
PINUS Strobis , Weymouth's Pine	80% ₀	92% ₀	1.30	1.45	1.75
Origin: hill districts 600—1600 ft.					
This beautiful tree is not only of great ornamental value, it is besides that recommendable as a forest-tree, well fit for the plantation of moist valleys, peats, and in general for fresh and silicious regions. It does not thrive in calcareous soil. Height 100 ft.					
PINUS sylvestris , Scotch Pine	90% ₀	95% ₀	— .90	1.—	1.20
Origin: Austria, hill districts, beneath 1600 ft.					
Czechoslovakia, hill districts, beneath 1600 ft.					
Carpathians-Tyrol, mountains of medium height 1600—3300 ft.					

*) If ten tons or more are required, ask special offer cif American harbour.

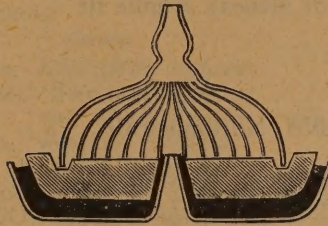
Tested seed pays!

		germina- tive power	purity	1000 lbs.	100 lbs.	1 lb.
		Prices for: U. S. \$ per lb.				
Origin: Germany and Poland, hill districts beneath	1600 ft.	90 ⁰ / ₀	95 ⁰ / ₀	1.30	1.45	1.75
var. rigensis		85 ⁰ / ₀	94 ⁰ / ₀	1.50	1.65	2.—
Origin: Finland						
Scotland						

Thrives in silicious, argillo-silicious, gravelly or calcareous soils, provided they be sufficiently deep. Very valuable for the re-afforestation of very bad soil. Successfully used for the planting of peaty ranges. Height 100—140 ft.

! Communicate please from which ranges you wish !
to get your seeds!

*) If ten tons or more are required, ask special offer cif American harbour.



Grünwald's Apparatus

for testing and estimating the value of all forest- and agricultural seeds, kinds of corn, etc., 1 piece \$ 2.20, 10 pieces \$ 20.—, 100 pieces \$ 160.—.

Glass plate	\$ 1.—
Bell	— .90
Spare germinating plate (terra-cotta plate)	— .30

This apparatus consists of an earthenware-plate, on which there is a germination-sheet of porous clay, the top-side of which shows one hundred trough-shaped hollows, the so-called germination-cells, for receiving the single seeds. A glass-bell serves to cover this sheet.

In the middle of the plate there is a tubular opening allowing the fresh air to reach the seeds tested. The air used escapes through a corresponding opening in the bell.

Before using the apparatus, put the germination-sheet for half an hour in water to get the pores well soaked. Then place into each cell one grain of the seed to be tested. The sheet is covered with the bell and is kept moist by pouring some water into the glass-plate in intervals from one to two days, according to the temperature of the place where the apparatus is kept standing.

After use it is good to clean the germination-sheet with a brush in hot water.

IMPORTANT NOTICE:

Allow me to draw your attention to the fact that the Government of the United States prescribes a special permit for importing seeds and therefore, in case of order, inform me of the number of your permit to prevent delays and annoyances. For small quantities I recommend mailing in post-parcels, in which case there should be a separate permit.

Coniferous Tree Seeds (Evergreens)

		Prices for:		
		1000 lbs.	100 lbs.	1 lb.
		U. S. \$ per lb.		
ABIES	amabilis, amabilis fir	price on demand		
"	balsamea, balsam fir	price on demand		
"	brachyphylla (homolepis), Nikko fir	1.80	2.—	2.40
"	canadensis see Tsuga			
"	cephalonica, Greek fir	1.—	1.10	1.30
"	cilicica	1.25	1.40	1.70
"	concolor, white fir	price on demand		
"	firma, Japanese silver fir	1.60	1.80	2.20
"	Fraseri, Fraser fir	price on demand		
"	grandis vel Gordoniana, great silver-fir	price on demand		
"	Holophylla, Needle fir	1.40	1.60	2.—
"	Koreana	2.80	3.10	3.70
"	lasiocarpa (concolor glauca), Alpine fir	price on demand		
"	magnifica, red fir	price on demand		
"	Mariesii	2.80	3.10	3.70
"	nigra	failure		
"	nobilis, noble fir	price on demand		
"	NORDMANNIANA, Nordmann fir	—95	1.10	1.30
"	numidica		2.—	2.40
"	PECTINATA, European silver-fir	see page 5		
"	Pinsapo, Spanish silver-fir	—80	—90	1.10
"	" glauca	1.10	1.25	1.50
"	sachalinensis	4.—	4.50	5.40
"	sibirica			5.—
"	veitchii	2.20	2.40	2.90
ARAUCARIA	brasiliana, 1.000 seeds 11.—, 100 seeds	1.30		
	excelsa, 1.000 seeds 8.—, 100 seeds	1.—		
	imbricata, 1.000 seeds 8.—, 100 seeds	1.—		
BIOTA ,	see also THUJA			
"	compacta, compact O. AV.	—80	—90	1.10
"	nana	—80	—90	1.10
"	orientalis, arborvitae	—40	—45	—60
"	" var. aurea	1.—	1.10	1.30
"	" semper-aurea	1.—	1.10	1.30
"	pyramidalis, pyramidal O. AV.	—90	1.—	1.20
"	tatarica		1.30	1.60
CEDRUS	atlantica, Atlas cedar	1.30	1.45	1.75
"	argentea		1.60	1.90
Very fine tree that grows faster than the Cedrus Libani, will have a sound, light and deep soil. Prefers the dry and calcareous regions of the South to the temperate zone. Height 100 ft.				
CEDRUS	atlantica glauca		2.—	2.40
"	Deodara, Deodar	1.40	1.60	2.—
Magnificent ornamental tree that thrives well in argillaceous, argillo-silicious or calcareous, but permeable soils. Height 140 ft.				
CEDRUS	Libani, Cedar of Lebanon	1.30	1.45	1.75
Very fine decorative tree. Prefers mostly deep and fresh soil. Height 140 ft.				
CEPHALOTAXUS	drupacea, Jap. plum-yew	—45	—50	—60
"	Fortunei	—80	—90	1.10
"	Koraiana	1.50	1.65	2.—
"	mascula (pedunculata)	—60	—70	—90

Tested seed pays!

		Prices for:		
		1000 lbs.	100 lbs.	1 lb.
		U. S. \$ per lb.		
CHAMAECYPARIS	Lawsoniana, Port Orford cedar	—90	1.—	1.20
"	" aurea		2.10	2.50
"	" variegata		2.10	2.50
"	" pyramidalis	1.60	1.80	2.20
CHAMAECYPARIS	Lawsoniana, var. pendula glauca	1.60	1.80	2.20
"	nutkaensis (Thujopsis borealis)			
"	yellow cedar	2.70	3.—	3.60
"	(Retinospora) obtusa, Hinoki cypress	1.80	2.—	2.40
"	(Retinospora) pisifera, Sawara			
"	Retinospora	1.80	2.—	2.40
"	(Retinospora) pisifera var. filifera	3.—	3.30	4.—
"	(Retinospora) pisifera var. plumosa			6.—
"	(Retinospora) pisifera var. squar-rosa			6.—
CRYPTOMERIA	japonica, common cryptomeria	—90	1.—	1.20
"	japonica, var. elegans		2.40	3.—
"	japonica, var. Lobbii		2.40	3.—
CUNNINGHAMIA	sinensis		6.—	7.—
"	" glauca		8.—	9.—
CUPRESSUS	australis, Australian cypress	1.60	1.80	2.20
"	Benthami, Bentham cypress		3.—	3.60
"	" var. arizonica, Ariz. cypress		3.—	3.60
"	funebis, weeping cypress	1.45	1.60	2.—
"	glauca pendula	1.45	1.60	2.—
"	Goweniana, Gowen cypress	1.35	1.50	1.80
"	HORIZONTALIS, spreading cypress	—20	—23	—30
"	Knightiana vel elegans		3.—	3.60
"	Lindleyi, Lindley cypress		2.—	2.40
"	lusitanica vel glauca	—90	1.—	1.20
"	Mac-Nabiana, Macnab cypress		2.50	3.—
"	macrocarpa vel Lambertiana, Monterey cypress	1.30	1.45	1.75
Very fast growing tree which resists perfectly well to calcareous soil. Excellent for breaking the storm.				
CUPRESSUS	sempervirens pyramidalis, pyramidal Italian cypress	—20	—23	—30
Much used for cemeteries, avenues and as a wind-breaker. Height 70 ft.				
CUPRESSUS	sinensis		2.—	2.40
"	torulosa	1.15	1.30	1.60
"	" var. Corneyana		2.70	3.30
"	" " majestica	1.80	2.—	2.40
"	Triomphe de Boskoop		3.60	4.40
GINKGO	biloba, maidenhair-tree	—17	—20	—25
JUNIPERUS	bermudiana		1.50	1.80
"	chinensis (Fine ornamental juniper.)	—80	—90	1.10
"	COMMUNIS, common juniper. *)		see page 5	
"	" var. pyramidalis	—35	—40	—50
"	drupacea	—60	—70	—90
"	excelsa, high savin	—60	—70	—90
"	japonica	—70	—80	1.—
"	litoralis (Creeping juniper)		1.50	1.80
"	macrocarpa	—35	—40	—50
"	nana (montana)	—55	—60	—75
"	oxycedrus	—20	—23	—30
"	" rigida (best for garden)	1.—	1.10	1.30

*) If ten tons or more are required, ask special offer cif American harbour.

Test your seeds!

		Prices for:		
		1000 lbs	100 lbs.	1 lb.
		U. S. \$ per lb.		
JUNIPERUS	Sabina, savin	1.50	1.65	2.—
"	VIRGINIANA, red cedar	— .30	— .34	— .40
Very ornamental, particularly well growing in fertile, deep and fresh soils. Fears moisture. Fit for the plantation of avenues, Height 70 ft.				
JUNIPERUS	VIRGINIANA, var. argentea	— .70	— .80	1.—
LARIX	AMERICANA	price on demand		
"	dahurica (Korean or Dahurican larch)	3.20	3.50	4.20
"	EUROPAEA, Europaeen larch	see page 5		
"	LEPTOLEPIS , Japanese larch 45/50% germ.	2.50	2.80	3.40
It is collected in the mountain ranges of Japan up to 8500 ft. height. Very fast growing tree, superior to all other coniferous trees for all forestry planting. Thrives exceedingly well in sandy and deep soils. Height 100 ft.				
LARIX	occidentalis (Western larch)	price on demand		
"	sibirica (Siberian larch)	2.—	2.20	2.60
LIBOCEDRUS	decurrens, incense cedar	— .70	— .80	1.—
PICEA	ajanensis, Ajan spruce		8.—	10.—
"	ALBA (canadensis) white spruce	1.30	1.45	1.75
Fine ornamental tree of vigorous growth which likes silicious and fresh soils. Height 50 ft.				
PICEA	Alcockiana (Sir Alcock's spruce)		4.—	4.80
"	Engelmanni, Engelmann spruce	price on demand		
"	EXCELSA, Norway spruce	see page 5		
"	Glehni (Saghalin spruce)		6.—	7.20
"	Hodoensis (Hondo spruce)		5.—	6.—
"	Koraiensis (Korean Tiger Tail spruce)		4.—	4.80
"	Koyamai		6.—	7.20
"	Morinda vel Smithiana		4.—	4.80
"	nigra, black spruce	price on demand		
"	obovata (Korean spruce, best for forest, ornamental spruce)		5.—	6.—
PICEA	OMORICA (Serbian spruce) Pančić	30.—		36.—
The seeds I offer are guaranteed true, collected from Serbian mother-trees and their germination is 85/90%, while the seeds offered at cheap price by several other parties, are partly of inferior quality, partly not produced by the true mother-trees.				
A rare, strong and most resistant species of great decorative effect. According to Professor PANČIČ the most beautiful of all Piceas. Accommodates itself to whatever kind of soil, thrives in altitudes up to 5000 feet on stony and rocky slopes and is very frost-hardy.				
PICEA	orientalis	price on demand		
"	polita	3.60	4.—	4.80
"	pungens (Parreyana) Colorado spruce		3.50	4.20
Ornamental tree of great beauty, rendering good services in afforestation. Fresh, permeable and deep soil.				
PICEA	pungens argentea		6.—	7.20
"	" glauca, Colo blue spruce		6.—	7.20
"	" Koster		9.—	11.—
"	rubra, red spruce		10.—	12.—
"	sitchensis vel Menziesii, Sitka spruce	3.—	3.30	4.—
Must have fresh and rich soil, not fit for dry one;				

Prices for:
1000 lbs. 100 lbs. 1 lb.
U. S. \$ per lb.

it is rather remarkable for its growth and forms a magnificent green pyramid. Suitable for very moist places, in which other conifers cannot thrive. Not fit for calcareous soil. Height 140 ft.

PINUS	albicaulis, Whitebark Pine			15.—
"	attenuata see Pinus tuberculata			
"	australis see Pinus palustris			
"	ayacuahuite		7.—	8.40
"	BANKSIANA, Jack pine 80% germ.	1.10	1.20	1.50
"	brevispica, Formosa Alpine Black Pine		5.—	6.—
"	Bungiana, lacebark pine		2.20	2.60
"	Canariensis, canary pine	1.—	1.10	1.30
"	CEMBRA, Swiss stone pine		see page 6	
"	contorta, shore pine		price on demand	
"	Coulteri, Coulter pine		5.—	6.—
"	densiflora, Japanese red pine	1.20	1.30	1.60
"	echinata see Pinus mitis			
"	edulis, pinyon nut pine	1.60	1.80	2.20
"	excelsa (strobis excelsa)	1.20	1.30	1.60
"	flexilis, Limber pine		4.—	4.80
"	funbris, Chinese Black pine	1.80	2.—	2.40
"	HALEPENSIS, Aleppo pine		see page 6	
"	inops, scrub pine		price on demand	
"	INSIGNIS vel radiata, Monterey pine,	1.25	1.40	1.70

Large fine tree of rapid growth, produces useful softwood. Likes coastal regions and is often successful in moist mountains. Not drought-hardy and does not thrive in sour soils. Height about 90 feet.

PINUS	Jeffreyi, Jeffrey pine		price on demand	
"	koraiensis, Korean pine	1.—	1.10	1.30
"	Lambertiana, sugar pine	2.—	2.20	2.60
"	LARICIO var. corsica		see page 6	
"	" VAR. AUSTRIACA, Austrian pine		see page 5	
"	" var. calabrica, Calabrian pine	2.—	2.20	2.60
"	" var. cebennensis vel Saltzmanni			4.—
"	" var. taurica		5.—	6.—
"	leophylla		5.—	6.—
"	LEUCODERMIS	2.20	2.40	2.90

Highly decorative tree, especially on account of the formation of its scales. Exceedingly unpretending with regard to climate and nature of soil. Wood of the same value as that of the other species of Pinus

PINUS	longifolia		5.—	6.—
"	Luchuensis, Ryukyu pine, fine ornamental tree		6.—	7.20
"	lutea see pinus Taeda			
"	MARITIMA vel pinaster, cluster pine*)		see page 6	
"	" var.	—15	—17	—20
"	massoniana, Formosa Red pine	2.—	2.20	2.60
"	mitis, shortleaf pine		6.—	7.20
"	mongolica		4.—	4.80
"	monophylla, single-leaf pinyon		5.—	6.—
"	MONTANA vel uncinata, Swiss mountain pine		see page 6	
"	MONTANA var. Mughus, manybranched mugho pine		see page 6	
"	Montezumae		5.—	6.—
"	monticola, silver pine		4.50	5.50

*) If ten tons or more are required, ask special offer cif American harbour.

Tested seed pays!

		Prices for:		
		1000 lbs.	100 lbs.	1 lb.
		U. S. \$ per lb.		
PINUS	muricata, bishop pine		3.50	4.20
"	murrayana, Lodgepole Pine		price on demand	
"	palustris vel australis, long-leaf pine	2.20	2.40	2.90
"	paroliniana (Pinus pyrenaeica)		3.30	4.—
"	Parryana, Parry pinyon		4.50	5.50
"	parviflora	2.70	3.—	3.60
"	patula			6.—
"	pentaphylla	2.70	3.—	3.60
"	PEUCE	2.—	2.20	2.60

Exceedingly nice for ornamental purposes. Is not attacked by blister-rust, therefore most recommendable for localities which for this reason are not fit for *Pinus Strobus*. Perfect and good substitute for this latter.

PINUS	PINEA, Italian stone pine ^{*)}		see page 6	
"	pinia fragilis	1.35	1.50	1.80
"	podocarpus macrophylla		2.—	2.40
"	ponderosa, western yellow pine	2.—	2.20	2.60
"	pumila	3.20	3.50	4.20
"	rigida, pitch pine		price on demand	
"	rubra vel resinosa, red pine		18.—	22.—
"	Sabiniana, digger pine	1.—	1 10	1.30
"	serotina			10.—
"	STROBUS, white pine		see page 6	
"	strobis Thunbergii		8.—	10.—
"	SYLVESTRIS, Scotch pine		see page 6	
"	var. rigensis		see page 7	
"	taeda, "Loblolly pine		4.—	4.80
"	Taiwanensis	2.70	3.—	3.60
"	tanyosho, Japanese Table pine			22.—
"	teocote			7.—
"	Thunbergii, Japanese red pine	1.10	1.20	1.40
"	Torreyana, Torrey pine			10.—
"	tuberculata, knobcone pine		10.—	12.—
"	virginiana see pinus inops			
Podocarpus	chinensis	1.—	1.10	1.30
"	Nageia	1.70	1.90	2.30
PSEUDOLARIX	Kaempferi	2.70	3.—	3.60
PSEUDOTSUGA	Douglasii Viridis, Douglas spruce, green	5.—	5.50	6.50
PSEUDOTSUGA	Douglasii glauca, Douglas spruce, blue	4.50	5.—	6.—
RETINOSPORA	see CHAMAECYPARIS			
SALISBURIA	see GINKGO			
SCIADOPITYS	verticillata, umbrella pine	2.50	2.75	3.30
SEQUOIA (Wellingtonia)	gigantea, big tree, Giant Sequoia	7.—	8.—	10.—
SEQUOIA	sempervirens, redwood	1.—	1.10	1.30
TAXODIUM	distichum, bald cypress	—35	—40	—50
TAXUS BACCATA ,	English yew	—80	—90	1.10
"	var. adpressa	1.60	1.80	2.20
"	var. pyramidalis	1.60	1.80	2.20
"	brevifolia		3.50	4.20
"	cuspidata, Japanese yew	1.80	2.—	2.40
"	fastigiata var. hibernica	1.80	2.—	2.40
THUJA	see also BIOTA			
"	elegantissima	1.30	1.45	1.75
"	gigantea vel Lobbii		4.—	4.80
"	japonica (Thuja Standishi)		4.50	5.50

^{*)} If ten tons or more are required, ask special offer cif American harbour.

Test your seeds!

		Prices for:		
		1000 lbs.	100 lbs.	1 lb.
		U. S. \$ per lb.		
THUJA	occidentalis, American arborvitae	2.—	2.20	2.60
"	" var. pyramidalis		3.—	3.60
"	" var. Warreana	2.70	3.—	3.60
"	orientalis, Oriental A. V. see also Biota			
THUJOPSIS	dolobrata	4.—	4.40	5.30
"	" nana		6.—	7.20
"	" var.			16.—
"	Standishi	4.50	5.—	6.—
TORREYA	Nucifera (Japanese Nutmeg Cedar)	—70	—80	1.—
TSUGA	canadensis, Canada hemlock	7.—	8.—	10.—
"	diversifolia, small-leaved hemlock		4.—	4.80
"	Mertensiana, black hemlock		10.—	11.—
"	Sieboldii, Siebold hemlock		4.—	4.80
WELLINGTONIA	see SEQUOIA			

Broad-Leaved Tree Seeds

		Prices for:		
		1000 lbs.	100 lbs.	1 lb.
		U. S. \$ per lb.		
ABELIA	japonica		4.—	4.80
ACACIA	see also MIMOSA and ROBINIA			
"	armata			9.—
"	adenophora			9.—
"	buxifolia			9.—
"	dealbata	1.60	1.80	2.20
"	decurrens			6.—
"	elata			12.—
"	farnesiana	—90	1.—	1.20
"	florabunda			7.—
"	longifolia		2.50	3.—
"	melanoxylon	1.40	1.60	1.90
"	oxycedrus			9.—
"	pendula			9.—
"	podalyriaefolia			11.—
"	prominens, Silver-Wattle			6.—
"	pruinosa			10.—
ACER	argutum		3.—	3.60
"	CAMPESTRE, hedge maple	—10	—12	—15
"	carpinifolium, Plover maple	2.50	2.75	3.30
"	dasycarpum	—50	—55	—70
"	diabolicum (Acer purpurascens)		3.—	3.60
"	distylum, Circle-leaf maple		3.—	3.60
"	japonicum, Fullmoon-maple	1.80	2.—	2.40
"	lactum	1.80	2.—	2.40
"	macrophyllum, Oregon maple	—80	—90	1.10
"	monspessulanum	—50	—55	—70
"	NEGUNDO, boxelder	—16	—18	—25
"	" var. foliis variegatis	—45	—50	—60
"	parviflorum		2.70	3.30
"	pennsylvanicum vel striatum, striped maple		3.30	4.—
"	PLATANOIDES	—12	—15	—20
"	platanoides Schwedleri (Acer plat. var. atropurpur)	—40	—45	—55
"	polymorphum vel palmatum, Japanese maple	2.50	2.75	3.30
"	" var. atropurpureum, bloodleaf maple		8.—	10.—
"	PSEUDOPLATANUS, Sycamore maple	—15	—17	—20
"	" var. foliis atropurpureis, purple sycamore maple	—45	—50	—60

Use Grünwald's Tester!

		Prices for:		
		1000 lbs.	100 lbs.	1 lb.
		U. S. \$ per lb.		
		failure		
ACER	rubrum, red maple			
"	saccharinum see Acer dasycarpum			
"	saccharum, sugar maple	1.20	1.35	1.60
"	tataricum	1.35	1.50	1.80
"	var. Ginnala, Amur maple	2.—	2.20	2.60
ACTAEA	spicata	2.—	2.20	2.60
ACTINIDIA	arguta, ornamental climber		10.—	12.—
AESCULUS	hippocastanum, horse chestnut*)	—02	—03	—05
"	rubicunda, red horse chestnut	—12	—15	—20
AILANTHUS	GLANDULOSA	—14	—17	—20
AKEBIA	Lobata, heavy three-leaved Akebia	1.60	1.80	2.20
"	Quinata	1.60	1.80	2.20
ALBIZZIA	lophantha			6.—
ALNUS	GLUTINOSA, European alder	—27	—30	—35
"	INCANA, speckled alder	—55	—60	—70
"	japonica, Japanese alder	1.40	1.60	1.90
"	viridis	—50	—55	—70
AMELANCHIER	asiatica		1.80	2.20
"	vulgaris, service tree		2.—	2.40
AMYGDALUS	see FRUIT seeds			
AMORPHA	fragens nana	—45	—50	—60
"	fruticosa, Indigo bush	—22	—25	—30
"	var. glabra	—45	—50	—60
AMPÉLOPSIS	megaphylla		2.50	3.—
"	quinquefolia, Va. creeper	—35	—40	—50
"	Veitchii, B. ivy	—80	—90	1.10
ARALIA	cordata		2.50	3.—
"	japonica		2.20	2.60
"	Sieboldii, Angelica-tree		2.70	3.30
"	spinosa, Angelica tree or Hercules Club		2.—	2.40
ARBUTUS	unedo, Madrone	1.10	1.20	1.40
ARDISIA	japonica, especially ornamental planted in groups		3.—	3.60
ARISTOLOCHIA	sipho, Dutchman's pipe		5.—	6.—
ARMENIACA	see FRUIT seeds			
ARONIA	arbutifolia, Red Chokeberry		1.50	1.80
ASPARAGUS	albus	—60	—70	—90
"	acutifolius	—80	—90	1.10
AUCUBA	japonica, seed dried in skin	—45	—50	—60
"	var., Jap. aucuba	—80	—90	1.10
		Dollars		
		for 1 lb.	for 1 oz.	
AZALEA	brachycarpum	22.—	2.—	
"	chrysanthum	20.—	1.80	
"	confertissimum	33.—	3.—	
"	coreanum	22.—	2.—	
"	dilatatum	31.—	2.80	
"	Hinode-giri	55.—	5.—	
"	indica	14.—	1.20	
"	indicum marranthum hybrida		14.—	
"	japonica	17.—	1.50	
"	Kaempferi	20.—	1.80	
"	mollis	14.—	1.20	
"	macropospatum	38.—	3.50	
"	mucronulatum	22.—	2.—	
"	obtusum Kurume		7.—	
"	omarasaki	55.—	5.—	
"	pouhanense		18.—	

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		Dollars	
		for 1 lb.	for 1 cz.
AZALEA	quinquefolia alba	66.—	6.—
"	" rosea	66.—	6.—
"	rhombicum	33.—	3.—
"	Schlippenbachii	22.—	2.—
"	serpyllifolium	44.—	4.—
"	sinense	55.—	5.—
"	Yedoensis (Korean Az.)	28.—	2.50
		Prices for:	
		1000 lbs.	1 lb.
		U. S. \$ per lb.	
BENTHAMIA	fragifera	—55	—60
BERBERIS NEPALENSIS			25.—
"	Sieboldi Sieboldian needle-leaved Barberry	2.50	2.75
"	THUNBERGII Japanese barberry	2.50	2.75
"	vulgaris	—20	—23
"	var. foliis atropurpureis, purple barberry	—90	1.—
BETULA ALBA	verrucosa European white birch	—11	—14
"	var. pendula, weeping birch	—60	—70
"	lenta, sweet birch		2.70
"	lutea, yellow birch		2.70
"	nigra vel rubra, river birch		2.70
"	papyrifera, canoe birch		3.20
"	populifolia, Gray birch		2.50
"	popsiacea		1.20
"	pubescens		1.20
BROUSSONETIA	papyrifera, paper mulberry		2.50
BUDDLEIA	japonica, hardy Japanese Buddleia		
"	Lindleyana	—90	1.—
"	variabilis	1.20	1.30
BUXUS	Koraiensis, Hardy Korean Boxwood		5.—
"	sempervirens, box-tree	—70	—80
CALYCANTHUS	floridus, common sweetshrub		3.—
"	occidentalis, western sweetshrub		4.—
"	praecox		2.50
"	var. grandiflorus		3.—
CAMELLIA (Thea)	japonica, Japanese flowering Camellia	—90	1.20
CAPPARIS	spinosa		3.—
"	var. inermis		3.30
CARAGANA	arborescens, Siberian pea-tree	—90	1.—
CARPINUS	americana, American hornbeam		2.—
"	betulus , European hornbeam	—10	—12
"	ostrea (carpinifolia)	—70	—80
CARYA (Juglans)	alba, shagbark (Hickory)	—22	—25
"	amara, bitternut	—22	—25
"	porcina, bignut	—22	—25
"	sulcata, shellbark	—22	—25
"	tomentosa, mockernut	—22	—25
CASTANEA	vesca, chestnut	—12	—15
"	var. macrocarpa	—18	—20
CASUARINA	Cunninghamia		2.50
"	glauca		
"	torulosa		7.—
CATALPA	bignonioides (Bignonia catalpa)	—36	—40
"	grandiflora		4.—
"	Kaempferi	—70	—90
"	radicans (Tecoma)		4.—
"	speciosa vel cordifolia, true wild catalpa		1.50

Test your seeds!

		Prices for:		
		1000 lbs.	100 lbs.	1 lb.
		U. S. \$ per lb.		
CEANOTHUS	americanus		1.50	1.80
"	azureus, blue myrtle			4.50
"	var.			4.50
CEANOTHUS	hybridum		3.50	4.20
"	mixtae var.			6.—
CEDRELA	SINENSIS		3.—	3.60
CELASTRUS	scandens, Amer bittersweet		2.20	2.70
CELTIS	australis	—30	—35	—45
"	occidentalis vel cordata, hackberry	—45	—50	—60
"	orientalis vel Tournefortii	—45	—50	—60
"	sinensis		1.60	2.—
CERASUS	see fruit-seeds			
CERCIDIPHYLLUM	japonicum		5.—	6.—
CERCIS	album		3.—	3.60
"	canadensis		1.60	2.—
"	chinensis (Cercis japonica), Chinese red bud		4.—	4.80
"	siliquastrum, Judas-tree	—30	—34	—40
"	var.	—80	—90	1.10
CHAMEROPS	arborescens 10.000 seeds 16.—, 1.000 seeds 2.—			
"	argentea 10.000 seeds 16.—, 1.000 seeds 2.—			
"	elegans 10.000 seeds 16.—, 1.000 seeds 2.—			
"	excelsa	—12	—15	—20
CHIONANTHUS	virginica, white fringe		4.—	4.80
CITRUS	aurantium		1.—	1.20
"	deliciosa		1.60	2.—
"	limonum	—70	—80	1.—
"	trifoliata		1.20	1.50
"	triptera	—80	—90	1.10
CLEMATIS	flammula	—80	—90	1.10
"	hybrida, mixtae var.			8.—
"	" flore pleno, mixtae var.			25.—
"	montana grandiflora			7.—
"	montana rubens			18.—
"	orientalis			9.—
"	paniculata, sweet autumn clematis		2.20	2.70
"	vitalba	—20	—24	—30
"	viticella	—40	—45	—55
CLETHRA	alnifolia		2.—	2.40
"	Barbinervis		2.—	2.40
COCOS	australis, 10.000 seeds 28.—, 1.000 seeds 3.50			
COLUTEA	arborescens	—25	—30	—40
"	purpurea			3.50
CORIARIA	myrtifolia		1.20	1.50
CORNUS	alba vel sibirica			4.—
"	florida, flowering dogwood	—60	—70	—90
"	mascula, Cornelian cherry	—27	—30	—40
"	sanguinea, bloodtwig dogwood	—12	—15	—20
CORONILLA	emerus		2.30	2.80
CORYLUS	avellana, filbert	—15	—18	—25
"	" var. foliis atropurpureis		1.50	1.80
"	columna	—25	—28	—35
COTONEASTER	angustifolia		1.20	1.50
"	buxifolia		1.20	1.50
"	frigida		2.—	2.40
"	horizontalis		1.60	2.—
"	microphylla		1.80	2.20
"	pannosa		1.60	2.—
"	Simonsii (acuminata)		1.60	2.—

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		Prices for:		
		1000 lbs.	100 lbs.	1 lb.
		U. S. \$ per lb.		
CRATAEGUS	azarolus	—40	—45	—55
"	coccinea, thicket hawthorn	—50	—55	—65
"	Crus Galli, cockspur hawthorn	—40	—45	—55
"	glabra	—40	—45	—55
"	oxyacantha, fruits, English hawthorn	—06	—08	—10
"	" clean seeds	—24	—27	—35
"	" vel monogyna fruits	—06	—08	—10
"	" " " clean seeds	—24	—27	—35
"	pyracantha	—22	—25	—30
"	var. Lalandii	—60	—70	—90
CYDONIA	see fruit-seeds			
CYTISUS	albus		2.—	2.40
"	alpinus		1.—	1.20
"	glabrescens (emeriflorus)		4.20	5.—
"	hirsutus			6.—
"	laburnum	—45	—50	—60
"	nigricans		3.20	4.—
"	purpureus			24.—
"	sessilifolius		4.—	4.80
"	Weldenii		—80	1.—
DAPHNE	laureola			4.50
"	mezereum			5.—
DEUTZIA	crenata		—70	—90
"	gracilis		—80	1.—
"	scabra		2.—	2.40
DIMORPHANTHUS	mandschuricus		2.—	2.40
DIOSPYROS	lotus, date plum	—40	—45	—55
"	sinensis vel Kaki, Kaki persimmon		1.50	1.80
"	virginiana, common persimmon	—70	—80	1.—
ELAEAGNUS	angustifolia, Russian olive	—60	—70	—90
"	edulis vel longipes, cherry elaeagnus	1.20	1.30	1.60
ERICA	arborea	—90	1.—	1.20
"	vulgaris (Calluna vulgaris)	—80	—90	1.10
ERIOBOTRYA	(Mespilus) japonica, Japanese Loquat	—50	—55	—65
EUCALYPTUS	see page 22			
EVONYMUS	europaeus, European burningbush	—36	—40	—50
"	japonicus, evergreen burningbush	—70	—80	1.—
"	japonicus, var. aureus		1.20	1.50
"	latifolius		1.20	1.50
FAGUS SYLVATICA	European beech	—20	—23	—30
"	var. purpurea, purple beech		1.—	1.20
FICUS	carica		5.—	6.—
FONTANESIA	phillyraeoides		—90	1.10
FORSYTHIA	viridissima			8.—
FRAXINUS	AMERICANA vel alba, white ash.	—12	—15	—20
"	EXCELSIOR, European ash.	—06	—08	—10
"	var. pendula	—36	—40	—50
"	mandschurica		1.60	2.—
"	oregona, Oregon ash			2.50
"	ORNUS, flowering ash	—10	—12	—15
"	pubescens, red ash	—12	—15	—20
"	viridis lanceolata, green ash		1.20	1.50
GENISTA	see also SPARTIUM			
"	canariensis		6.—	7.20
"	germanica		3.—	3.60
"	monosperma		1.—	1.20
"	pilosa		3.—	3.60
"	radiata		3.—	3.60
"	tinctoria	—90	1.—	1.20

Tested seed pays!

		Prices for:		
		1000 lbs.	100 lbs. U. S. \$ per lb.	1 lb.
GLEDITSCHIA	<i>casica</i>	—50	—55	—65
"	<i>horrida</i>	—50	—55	—65
"	<i>japonica</i> (Japanese Locust)		1.50	1.80
"	<i>sinensis</i> , Chinese honeylocust		—80	1.—
"	TRIACANTHOS , honeylocust*)	—10	—12	—15
"	TRIACANTHOS var. <i>inermis</i>	—27	—30	—40
GLYCINIA	see <i>Wistaria</i>			
GYMNOCLADUS	<i>canadensis</i> , coffee-tree	—90	1.—	1.20
HALESIA	<i>hispida</i>		3.50	4.20
"	<i>tetraptera</i>		1.80	2.20
HAMAMELIS	<i>japonica</i> (Japanese witch-hazel)		5.—	6.—
"	<i>obtusa</i> (Autumn flowering sort.)			7.—
"	<i>virginica</i> , witch-hazel		2.—	2.40
HEDERA	<i>helix</i> , English ivy	—15	—18	—25
"	var. <i>foliis hibernica</i>	—36	—40	—50
HIBISCUS	<i>syriacus</i> , shrub-althea	—20	—23	—30
"	var. <i>flore pleno</i>	—45	—50	—60
HIPPOPHAE	<i>rhamnoides</i>	—45	—50	—60
ILEX	<i>aquifolium</i> , English holly	—50	—55	—65
"	var. <i>foliis variegatis</i>	—80	—90	1.10
"	<i>Crenata</i> (Japanese Holly)		2.—	2.40
"	<i>Cunninghami</i>		2.—	2.40
"	<i>integra</i> (tall growing Holly Tree)		2.20	2.60
"	<i>opaca</i> , holly		1.20	1.50
JACARANDA	<i>mimosaeifolia</i> , 10,000 seeds 10.—			
	1,000 seeds 1.20			
JASMINUM	<i>fructicans</i>		1.50	1.80
JUGLANS	see also <i>Carya</i>			
"	<i>cinerea</i> , butternut		—30	—40
"	<i>nigra</i> , black walnut*)	—09	0.10	—15
"	<i>regia</i> , Persian (English) walnut*)	—15	—18	—25
KOELREUTERIA	<i>paniculata</i> , goldenrain-tree	—16	—19	—25
LAGERSTROEMIA	<i>indica</i>		3.—	3.60
LAURUS	<i>camphora</i>		2.—	2.40
"	<i>cerasus</i> (<i>Laurocerasus</i>)	—12	—15	—20
"	<i>glandulosa</i>	—90	1.—	1.20
"	<i>nobilis</i> , Grecian laurel*)	—15	—18	—25
LIGUSTRUM	<i>ibota</i> (<i>Ibota privet</i>)	—90	1.—	1.20
"	<i>japonicum</i> , tall Japanese privet	—15	—18	—25
"	<i>lucidum</i>	—25	—28	—35
"	<i>ovalifolium</i>	—30	—34	—40
"	<i>vulgare</i> , European privet	—10	—12	—15
LIRIODENDRON	<i>tulipifera</i> , tulip-tree	—30	—34	—40
LIVINGSTONIA	<i>australis</i> (<i>Corypha</i>) 10,000 seeds 20.—	1,000 seeds 2.40		
"	<i>chinensis</i> (<i>Betel-nut</i>) 1,000 seeds 16.—			
LONICERA	<i>alpigena</i>		1.—	1.20
"	<i>caprifolium</i>		1.20	1.50
"	<i>etrusca</i>		2.—	2.40
"	<i>japonica</i>		1.50	1.80
"	<i>tatarica</i>		1.—	1.20
"	<i>xylosteum</i>	—40	—45	—55
MACLURA	<i>aurantiaca</i>	1.—	1.10	1.30
MAGNOLIA	<i>acuminata</i> , cucumber-tree		2.—	2.40
"	<i>grandiflora</i> , southern magnolia	—90	1.—	1.20
"	<i>hypoleuca</i> , silver magnolia		1.80	2.20
"	<i>parviflora</i>		5.—	6.—

*) If ten tons or more are required, ask special offer cif American harbour.

Test your seeds!

		1000 lbs.	Price for: 100 lbs. U. S. \$ per lb.	1 lb.
MAGNOLIA	soulangeana		2.20	2.60
"	umbrella vel tripetala, umbrella magnolia		2.20	2.60
MAHONIA	aquifolium, hollygrape	1.10	1.20	1.50
"	japonica vel Beali		1.50	1.80
MALUS	see fruit-seeds			
MELIA	azedarach, Chinaberry-tree	—15	—18	—25
"	japonica	1.—	1.10	1.30
MESPILUS	germanica	—50	—55	—65
MIMOSA	see also Acacia and Robinia			
"	(Acacia) Julibrissin	—20	—23	—30
"	NEMU		2.50	3.—
MORUS	see fruit seeds			
MYRTUS	communis, myrtle	—60	—70	—90
NANDINA	domestica		2.—	2.40
"	" white berries		3.40	4.—
OLEA	europaea	—20	—23	—30
OSTRYA	vulgaris (Carpinus ostrya), hop-hornbeam	—70	—80	1.—
PALIURUS	aculeatus	—30	—34	—40
PAULOWNIA	imperialis	—30	—34	—40
PHELLODENDRON	amurense		2.—	2.40
PHILADELPHUS	coronarius		3.—	3.60
"	grandiflorus		3.50	4.20
"	hirsutus		3.50	4.20
"	inodorus			7.—
PHOENIX	canariensis 10.000 seeds	8.—	1.000 seeds	1.—
"	dactylifera 10.000 seeds	25.—	1.000 seeds	3.—
"	senegalensis 10.000 seeds	30.—	1.000 seeds	3.60
"	spinosa (Leonensis) 10.000 seeds	40.—	1.000 seeds	5.—
"	sylvestris 10.000 seeds	40.—	1.000 seeds	5.—
"	tenuis 10.000 seeds	20.—	1.000 seeds	2.40
"	tomentosa 10.000 seeds	50.—	1.000 seeds	6.—
PIRUS	see fruit-seeds			
PISTACIA	chinensis		2.50	3.—
"	lentiscus	—70	—80	1.—
"	terebinthus	—70	—80	1.—
"	vera		2.70	3.30
PLATANUS	occidentalis, American planetree	—11	—14	—20
"	orientalis, European planetree	—11	—14	—20
POINCIANA	Gillesii		8.—	10.—
POPULUS	alba, white poplar	—36	—40	—50
"	canadensis	—40	—45	—55
"	nigra, black poplar	—27	—30	—40
"	tremula	—36	—40	—50
PRUNUS	see fruit seeds			
"	padus, European bird cherry	—50	—55	—65
"	serotina, black cherry	—60	—70	—90
"	spinosa, sloe-tree, blackthorn	—14	—16	1.20
"	virginiana	—90	1.—	1.20
PTELEA	trifoliata, hoptree	—55	—60	—70
PTEROCARYA	caucasica		1.—	1.20
"	fraxinifolia		1.—	1.20
"	laewigata		1.—	1.20
"	rhoifolia		1.50	1.80
"	stenoptera vel jap.		2.50	3.—
QUERCUS	cerris*)	—03	—05	—10
"	coccinea, scarlet oak	—36	—40	—50
"	conferta	—27	—30	—40

*) If ten tons or more are required, ask special offer cif American harbour.

Use Grünwald's Tester!

		Prices for:		
		1000 lbs.	100 lbs.	1 lb.
		U. S. \$ per lb.		
QUERCUS	cuspidata	—80	—90	1.10
"	ilex	—10	—12	—20
"	palustris, pin oak	—45	—50	—60
"	PEDUNCULATA, Engl. oak*),	—03	—05	—10
"	PUBESCENS	—10	—12	—20
"	pyramidalis	—20	—23	—30
"	ROBUR VAR. SESSILIFLORA*)	—03	—05	—10
"	RUBRA, red oak*)	—08	—10	—15
"	Suber	—08	—10	—15
"	tinctoria	—55	—60	—70
RHAMNUS	alaternus	—36	—40	—50
"	alpinus	—70	—80	1.—
"	catharticus, common buckthorn	—30	—34	—40
"	frangula, glossy buckthorn	—36	—40	—50
"	utilis	—45	—50	—60
RHODODENDRON	see also Azalea			
"	Hymenanthus pentamerum			
"	(Metternich) . . . per oz. 3.—			33.—
"	Keiskei . . . " " 5.—			—
"	ponticum . . . " " 1.—			10.—
RHODOTYPUS	kerrioides, jetbead	1.—	1.10	1.30
RHUS	coriaria	—50	—55	—65
"	cotinus, purple fringe, smoketrec	1.10	1.20	1.50
"	glabra, smooth sumach		1.—	1.20
"	toxicodendron, poisonwood			3.—
"	typhina, staghorn sumach	—36	—40	—50
RIBES	see fruit-seeds			
ROBINIA ,	see also Acacia and Mimosa			
"	monophylla		1.—	1.20
"	PSEUDO-ACACIA , black (yellow*)			
"	locust	—11	—14	—20
ROBINIA	PSEUDO-ACACIA, black var. Bessoniana	—60	—70	—90
"	pscudoacacia var. inermis	—40	—45	—55
"	pyramidalis	—90	1.—	1.20
"	viscosa, clammy locust		1.20	1.50
ROSA	see fruit-seeds			
RUBUS	see fruit-seeds			
SALIX	alba, white willow	—27	—30	—40
"	caprea	—27	30	—40
"	purpurea	—27	—30	—40
"	viminalis	—27	—30	—40
SAMBUCUS	canadensis, elder		2.—	2.40
"	nigra	—20	—23	—30
"	racemosa	—30	—33	—40
SOPHORA	japonica, Chinese scholar-tree	—18	—20	—25
"	pendula	—36	—40	—50
"	platycarpa			4.50
SORBUS	aria	—20	—23	—30
"	aucuparia	—08	—10	—15
"	domestica, fruits	—45	—50	—60
"	" clean seeds		5.—	6.—
"	latifolia	—60	—70	—90
"	scandica	—60	—70	—90
"	terminalis	—26	—30	—40
SPARTIUM	junceum	—36	—40	—50
	scoparium, broom	—22	—25	—30

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Tested seed pays!

		Prices for:		
		1000 lbs	100 lbs.	1 lb.
		U. S. \$ per lb.		
SPIRAEA	<i>callosa</i>		1.30	1.60
"	<i>fortunei</i> vel. <i>japonica</i>			20.—
"	(<i>Exochorda</i>) <i>grandiflora</i>			4.—
"	<i>Lindleyana</i>		1.20	1.50
"	<i>opulifolia</i>		1.20	1.50
"	<i>sorbifolia</i>			4.—
STAPHYLEA	<i>pinnata</i> , European bladdernut	—15	—18	—25
STERCULIA	<i>platanifolia</i>	—55	—60	—70
SYMPHORICARPOS	<i>racemosa</i>	—45	—50	—60
"	<i>vulgaris</i>	—60	—70	—90
"	<i>vulgaris atropurpurea</i>		1.50	1.80
SYRINGA DILATATA ,	Korean Lilac		4.—	5.—
"	<i>japonica</i> , Japanese tree lilac		6.—	7.—
"	<i>Josikaea</i>		4.—	5.—
"	VULGARIS , common lilac, clean seed	2.20	2.40	2.90
"	" fruits	—20	—23	—30
"	" var. <i>flore albo</i> , common			
	white lilac		2.70	3.30
TAMARIX	<i>gallica</i>	—55	—60	—70
TECOMA (<i>Bignonia</i>)	<i>radicans</i>		4.—	4.80
TILIA	<i>americana</i> , American Linden	—50	—55	—65
"	<i>argentea</i> , silver lime-tree	—22	—25	—30
"	PLATYPHYLLOS vel <i>grandifolia</i> , bigleaf			
	lime-tree	—20	—22	—33
	SILVESTRI vel <i>cordata</i> , heartleaf lime-tree	—22	—25	—30
ULEX	<i>europaea</i>	1.—	1.10	1.30
ULMUS	<i>americana</i> , white elm	—36	—40	—50
"	<i>campestris</i> , English elm	—22	—25	—30
"	<i>effusa</i>	—36	—40	—50
"	<i>montana</i> , Scotch elm	—36	—40	—50
VACCINIUM	<i>myrtilus</i> , myrtle berries	—80	—90	1.10
"	<i>vitis idaea</i>	1.—	1.10	1.30
VIBURNUM	<i>Carlesii</i> (Korean Viburnum)		6.—	7.—
"	<i>Dilatatum</i> (White flowering Viburnum)		1.80	2.20
"	<i>furcatum</i>		3.—	3.60
"	<i>lantana</i> , wayfaring tree	—20	—23	—30
"	<i>odoratissimum</i>		3.—	3.60
"	<i>opulus</i> , European granberry bush	—35	—40	—50
"	<i>Sieboldi</i> (Sesame fragrant shrub)		3.—	3.60
"	<i>tinus</i> , <i>laurustinus</i>	—20	—23	—30
"	<i>tomentosum</i>		3.—	3.60
VIRGILIA	<i>lutea</i> vel <i>cladrastis tinctoria</i>		2.—	2.40
VITEX	<i>agnus-castus</i>	—40	—45	—55
"	<i>album</i>	—70	—80	1.—
VITIS	<i>brevipedunculata</i>		2.—	2.40
"	<i>Coignetiae</i> , Gloryvine		2.—	2.40
WASHINGTONIA	<i>robusta</i> (<i>Pritchardia</i>) 10,000 seeds 15.— 1000 seeds	1.80		
WEIGELIA	<i>rosea</i>			28.—
"	<i>mixtea</i> var.			28.—
WISTARIA (<i>Glycinia</i>)	<i>chinensis</i> , blue Chinese wisteria		1.50	1.80
"	" " " purple		1.60	2.—
"	" " " <i>frutescens</i> ,			
	American wisteria		2.—	2.40
"	<i>frutescens</i> , white		1.80	2.20
"	<i>multijuga</i>		3.50	4.20
Zelkova	<i>Keaki</i>		1.80	2.20

Eucalyptus sorts:

		Prices for:	
		1 lb.	1 oz.
		U. S. \$	
E. agglomerator		10.—	—80
E. amygdalina (Peppermint Tree)		9.—	—75
E. Baueriana		11.—	—90
E. Bosistoana		10.—	—80
E. botryoides (Bastard Mahogany)		9.—	—75
E. callophylla (Marri)		11.—	—90
E. capitellata (Stringy Bark)		9.—	—75
E. cinerea (Argyle Apple)		9.—	—75
E. citriodora (Lemon scented Gum)		12.—	1.—
E. coccifera		70.—	6.—
E. colossea vel diversicolor		9.—	—75
E. consideniana		10.—	—80
E. coriacea (Drooping Gum)		9.—	—75
E. cornuta (Yeit Tree)		9.—	—75
E. corynocalyx (Sugar Gum)		9.—	—75
E. crebra (Red Iron Bark)		10.—	—80
E. Deanei		10.—	—80
E. eugenioides (Stringy Bark)		9.—	—75
E. fastigiata (Mountain ash)		13.—	1.10
E. ficifolia		14.—	1.20
E. gigantea syn. delegatensis		11.—	—90
E. globulus (Blue Gum)	100 lbs. 2.50 10 lbs. 3.—	3.50	—30
E. gomphocephala (Tooart Tree)		11.—	—90
E. goniocalyx (Bastard Box)		12.—	1.—
E. gunnii (Swamp Gum)		12.—	1.—
E. Lehmanni		10.—	—80
E. leucoxydon (Iron Bark)		10.—	—80
E. longifolia (Woolly Butt)		11.—	—90
E. Mac Arthuri (Swamp or River Woolly Butt)		11.—	—90
E. macrocarpa (Morral)		15.—	1.20
E. maculata		11.—	—90
E. maculosa		11.—	—90
E. Maidenii		11.—	—90
E. marginata (Jarrah)		11.—	—90
E. melliodora (Yellow Box)		10.—	—80
E. microcorys (Tallow Wood)		10.—	—80
E. Mulleriana		10.—	—80
E. obliqua vel gigantea (Stringy Bark)		10.—	—80
E. occidentalis (Flat topped Yate or Mallet Bark)		13.—	1.10
E. ovata		11.—	—90
E. paniculata (White Iron Bark)		10.—	—80
E. platyphylla		11.—	—90
E. pilularis (Black Butt)		10.—	—80
E. polyanthemus (Red Box)		10.—	—80
E. populifolia		11.—	—90
E. punctata (Leather Jacket)		10.—	—80
E. quadrangulata		11.—	—90
E. regnans (Victoria Mountain Ash)		14.—	1.20
E. resinifera (Forest Mahogany)		9.—	—75
E. robusta (Swamp Mahogany)	10 lbs. 4.—	4.50	—40
E. rostrata (Red Gum)	10 lbs. 3.—	3.60	—30
E. rubida (White Gum)		10.—	—80
E. saligna (salicifolia, Flooded Gum)		10.—	—80
E. siderophloea (Red Iron Bark)		11.—	—90
E. sideroxydon		11.—	—90

	Prices for:	
	1 lb.	1 oz.
	U. S. \$	
E. Sieberiana vel virgata (Gum Top)	10.—	—80
E. Smithii	11.—	—90
E. squamosa	10.—	—80
E. Stuartiana (Apple scented Gum)	10.—	—80
E. tereticornis (Grey Gum)	10.—	—80
E. umbra	10.—	—80
E. urnigera	150.—	12.—
E. viminalis (Manna Gum)	10.—	—80

Fruit-Seeds (Pits):

	Prices for:		
	1000 lbs.	100 lbs.	1 lb.
	U. S. \$ per lb.		
AMYGDALUS communis, Almond	—13	—15	—20
" amara, Bitter Almond	—13	—15	—20
" Davidiana	—70	—80	1.—
" Persica, Peach Tree	—06	—08	—15
ARMENIACA vulgaris, Apricot Tree	—06	—08	—15
CERASUS (Prunus) avium, Mazzard Cherry	—10	—12	—15
" " sylvestris	—40	—45	—60
" " Mahaleb fruits	—13	—15	—20
" " Mahaleb clean pits, origin South Europe	—30	—35	—45
" " " " France	—44	—50	—60
" " Padus, European Bird Cherry	—50	—55	—65
" " serotina, Black Cherry	—60	—70	—90
" " vulgaris (austera), Sour Pie	—06	—08	—15
CYDONIA japonica, Japanese Quince	1.60	1.80	2.20
" vulgaris, European Quince	1.20	1.35	1.65
MALUS communis (Pirus malus) Apple tree			
from grafted trees	—20	—22	—30
crab or wild apple seed, mild	—23	—26	—30
MORUS alba, White Mulberry	—40	—44	—55
" " var. fructo nigro, Black Mulberry	—70	—80	1.—
" " var. japonica, Japanese Mulberry		3.80	4.40
" " var. tatarica, Russian Mulberry		3.50	4.20
" Moretti		2.20	2.60
PIRUS communis , Pear Tree, from grafted trees	—70	—80	1.—
crab or wild pear seed, mild	—70	—80	1.—
(malus) baccata ried fruits	—18	—20	—25
" malus paradisiaca	—55	—60	—70
" japonica			5.—
" ussuriensis, Genuine China Pear		3.60	4.40
PRUNUS cerasifera vel myrabolana, Myrabolan Plum	—11	—13	—20
" domestica	—06	—08	—15
" domestica var. damascena, Damas Plum	—18	—20	—25
" domestica var. Juliana, Julian Plum	—10	—12	—20
RIBES gordonianum			5.50
" Grossularia, Gooseberry		2.—	2.40
" multiflorum			6.50
" rubrum, Red Currant	—50	—55	—65
" " var., White Currant	—60	—70	—90

Tested seed pays!

		Prices for.		
		1000 lbs.	100 lbs.	1 lb.
		U. S. \$ per lb.		
ROSA	canina, clean seed	— .09	— .11	— .15
„	laxa, fruits	— .90	1.—	1.20
„	polyantha (multiflora), Japanese Rose	— .70	— .80	1.—
„	rubiginosa, Sweet-Brier	— .50	— .55	— .65
„	rugosa, Rugosa Rose	— .90	1.—	1.20
RUBUS	fruticosus, Bramble	— .36	— .40	— .50
„	Idaeus, Raspberry	— .36	— .40	— .50

Collections of tree seeds and cones.

	Dollars
60 samples of the most important seeds of coniferous trees, native and foreign ones, packed in glass-tubes	5.—
90 samples of the most important seeds of deciduous trees and shrubs, native and foreign ones, packed in glass-tubes	6.—
75 samples of interesting seeds of coniferous and deciduous trees, packed in glass-tubes	6.—
150 samples as above	11.—
400 samples as above	25.—
25 cones of the most important native and foreign coniferous trees	3.—
Larger collections of seeds and cones on demand, price by correspondence.	

Seedlings and plants of coniferous trees and broad-leaved trees, wild plants of fruit-trees, hardy and well rooted, and all species of roses.

Kindly ask my special list on the above items.

